Congratulations on your purchase of the AV-SG001 Air Venturi Wing Shot .50 Caliber PCP Shotgun. Please read this instruction manual completely. Always carefully follow the safety instructions found in this manual and keep this manual in a safe place for future use.

If you have any questions regarding your new PCP Airgun, please contact the Air Venturi service line at 216-220-1180.

Please read this instruction manual completely. Always carefully follow the safety instructions found in this manual and keep this manual in a safe place for future use.

CAUTION: YOU AND OTHERS WITH YOU SHOULD ALWAYS WEAR SHOOTING GLASSES TO PROTECT YOUR EYES.

CAUTION: ALWAYS USE THE CORRECT CALIBER AMMUNITION THAT IS SUITABLE FOR THE AIRGUN. USE ONLY AMMUNITION DESIGNED FOR THIS AIRGUN.

CONTENTS

1. Rules of Safe Shooting
2. Customer Service - Troubleshooting
3. Learning Parts of the Airgun
4. Operating the Safety
5. Install the Cocking Bolt
6. Filling your Rifle
7. Uncocking / Cocking
8. Loading the Airgun
9. Operating the Air Distributor System (Double Shot Only)
10. Shooting the Double Shot
11. Cleaning the Barrel
12. Clearing a Jammed Bullet / Shell
13. Storage of the Airgun
14. Before Shooting the Air Bolt
15. Loading the Air Bolt
16. Warranty
17. Repair Service
18. Company Contact Information
1. Rules of Safe Shooting

- NEVER point the airgun at any person.
- NEVER point the airgun at anything you do not intend to shoot.
- ALWAYS treat the airgun as if it was loaded and handle it with the same respect you would a firearm.
- ALWAYS aim in a SAFE DIRECTION. ALWAYS keep the muzzle pointed in a SAFE DIRECTION.
- NEVER put any part of your hand over the muzzle.  
- ALWAYS keep the airgun ON “SAFE” until you are ready to shoot in a SAFE DIRECTION.
- Check behind and beyond your target to be certain you have a safe backstop and that no person or property can be endangered.
- Place the backstop in a location that will be safe should the backstop fail.
- Replace the backstop if it becomes worn.
- ALWAYS be sure of your target and what lies beyond it in case you miss.
- NEVER shoot at hard surfaces, water or anything else that may cause a ricochet.  
- This airgun may only be used where your local laws permit or at shooting ranges allowed by the law, and only if the ammunition does not travel further than the shooting area. Keep in mind the maximum range of the ammunition. ALWAYS abide by laws and regulations that apply to airguns.
- ALWAYS check to see if the airgun is ON “SAFE” and unloaded when getting it from another person or from storage.
- ALWAYS keep your finger off the trigger and away from the trigger guard until ready to shoot.
- You and others with you should ALWAYS wear safety shooting glasses to protect your eyes.
- If your reading or prescription glasses are not certified safety glasses, make sure you wear shooting glasses over your regular glasses.
- The shooter and everyone in the vicinity should wear hearing protection when shooting and filling guns with high-pressure air.
- NEVER load your gun until you’re ready to shoot and it’s safe to do so.
- ALWAYS use the correct caliber ammunition that is suitable for the airgun. Use ONLY ammunition designed for this airgun.
- NEVER reuse ammunition.
- ALWAYS store the airgun with the safety ON “SAFE”, unloaded, uncocked, separated from the ammunition, out of the reach of children, and in a secure location to prevent unauthorized people from accessing it.
- DO NOT attempt to disassemble or tamper with the airgun.
- DO NOT put the airgun away loaded. It is, however recommended that you store your Air Venturi airgun with at least 1,000 psi of high-pressure air.
- ALWAYS store this airgun in a safe location.
- ALWAYS store ammunition separately from the gun.
- NEVER leave the airgun loaded if it is out of your reach.
- ALWAYS unload the airgun before giving it to someone else.
- ALWAYS read and follow the manufacturer’s manual and instructions.
- NEVER let a person who has not completely read this manual use this product.
2. Customer Service - Troubleshooting

DO NOT use this PCP Airgun until you have read and understood this owner’s manual.

In the unlikely event your PCP Airgun malfunctions or exhibits reduced performance, DO NOT attempt to fix the problem yourself. Please call Air Venturi to address any issues. You may be asked to return the gun for repair.

Air Venturi service line: 216-220-1180

<table>
<thead>
<tr>
<th>SHOOTING ISSUE</th>
<th>Safety is on</th>
<th>Air Pressure is low</th>
<th>Slide not properly closed &amp; locked</th>
<th>Using incorrect ammunition</th>
<th>Barrel requires cleaning</th>
<th>Hammer in Half Cocked/Low Power Position</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACCURACY ISSUES</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
</tr>
<tr>
<td>DOES NOT FIRE</td>
<td>✔️</td>
<td>✔️</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LOW VELOCITY</td>
<td></td>
<td></td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
</tr>
</tbody>
</table>

3. Learning the Parts of the Air Venturi PCP Airgun

Learning the names of the parts of your new PCP Airgun will help you to understand the instruction manual.

1. Barrel
2. Muzzle
3. Air Chamber
4. Bead
5. Forend
6. Receiver
7. Stock
8. Buttpad
9. Trigger
10. Trigger Guard
11. Safety
12. Bolt
13. Breech
14. Choke
15. Quick-Fill
4. Operating the Safety

**WARNING:** BE SURE THE AIRGUN IS ALWAYS POINTED IN A SAFE DIRECTION. NEVER POINT THE AIRGUN AT ANYONE EVEN IF IT IS UNLOADED. ALWAYS ASSUME AND HANDLE THE AIRGUN AS IF IT WERE LOADED AND READY TO FIRE.

**NOTE:** ALWAYS think about safety first. Take your time. If you are uncertain how to proceed, stop and contact Air Venturi for assistance! **Air Venturi service line: 216-220-1180**

**TIP:** To become familiar with the safety, practice putting it on and off several times while the gun is unloaded.

4.1 Put the Airgun ON “SAFE”

- ALWAYS point the airgun in a safe direction.
- Locate the cross-bolt safety on the LEFT side of the gun, directly behind the trigger as shown in Figure 3.
  - The cross-bolt safety is marked with a red ring on the left side of the gun.
- Push the bolt completely to the RIGHT so the red ring IS NOT visible. The gun is now ON “SAFE.”
- The safety IS NOT ON “SAFE” if the red ring is visible.

**CAUTION:** LIKE ALL MECHANICAL DEVICES, AN AIRGUN SAFETY CAN FAIL. EVEN WHEN THE SAFETY IS ON “SAFE”, YOU SHOULD CONTINUE TO HANDLE THE AIRGUN SAFELY. NEVER POINT THE AIRGUN AT ANY PERSON. NEVER POINT THE AIRGUN AT ANYTHING YOU DO NOT INTEND TO SHOOT.

4.2 Take the Airgun OFF “SAFE”

- ALWAYS point the airgun in a safe direction.
- Locate the cross-bolt safety on the RIGHT side of the gun, directly behind the trigger as shown in Figure 3.
  - The cross-bolt safety is marked with a red ring on the left side of the gun.
- Push the bolt completely to the LEFT so the red ring IS visible. The gun is now OFF “SAFE” and ready to fire.
- The airgun is OFF “SAFE” and ready to fire when the red ring IS visible.

**NOTE:** The 2-stage trigger is non-adjustable.

**WARNING:** KEEP THE AIRGUN ON SAFE UNTIL YOU ARE READY TO SHOOT, THEN PUSH THE SAFETY OFF.
5. Install Cocking Bolt

**NOTE:** ALWAYS think about safety first. Take your time. If you are uncertain how to proceed, stop and contact Air Venturi for assistance! Air Venturi service line: 216-220-1180

**CAUTION:** BEFORE INSTALLING THE COCKING BOLT MAKE CERTAIN THE AIRGUN IS UNLOADED.

5.1 Take the Safety OFF “SAFE”
- ALWAYS point the airgun in a safe direction.

5.2 With the front sight of the gun on your left, insert a ¼ inch hex key or screwdriver into the cutout in the hammer tube (right side of the receiver).
  - Push the hammer back to the first click (low-power position).
    - See “Cocking/Uncocking Airgun in section 8.

5.3 Insert the cocking bolt as shown in Figure 4.
- Line up the cocking bolt opening with the screw hole in the hammer.

5.4 Install the screw
- With a No. 2 Phillips screwdriver, install the included 4mm screw and tighten securely.

6. Filling Your Rifle

**WARNING:** FILL YOUR PCP AIRGUN USING COMPRESSED AIR OR NITROGEN GAS ONLY. USE OF OTHER GASES, INCLUDING OXYGEN, CAN CAUSE A FIRE OR EXPLOSION THAT MAY RESULT IN PROPERTY DAMAGE, SERIOUS INJURY OR DEATH. FILLING WITH ANYTHING OTHER THAN AIR OR NITROGEN IS DANGEROUS AND WILL VOID YOUR WARRANTY.

**WARNING:** DO NOT EXCEED THE MAXIMUM FILL PRESSURE OF 206 BAR/3,000 PSI AT ROOM TEMPERATURE.

**DANGER** CAUTION: NEVER FILL YOUR AIRGUN OVER 206 BAR / 3,000 PSI. THIS IS DANGEROUS AND WILL VOID THE WARRANTY. In an over-filled condition (above 206 bar/3,000 psi), the rifle may fire at a much lower velocity.

1 - Remove the magnetic dust cover on the male quick disconnect fitting by pulling up on it.

2 - Attach your female quick disconnect fitting on your fill device to the male connection on the rifle. Make sure the collar on the female fitting is in the forward, locked position. Check this by trying to pull the fitting off of the gun to make sure it is locked in.

3 - If you are filling the rifle from empty, cock the rifle before beginning to fill.

4 - Close the bleed valve on the fill device and begin filling the rifle slowly. Filling the rifle too fast can cause excess heat buildup which can give inaccurate pressure readings.
6. Filling Your Rifle (continued)

5 - If filling from a tank, once the desired fill pressure is reached, close the main valve on the tank and bleed the line. From a pump, simply bleed the line when the desired fill pressure is reached.

**CAUTION: DO NOT FILL PAST 206 BAR/3,000 PSI**

6 - After the pressure in the line is bled, disconnect the female fitting from your fill device by pulling back on the collar and pulling it away from the rifle. Replace the magnetic dust cover on the male fitting to keep dust and debris out of the rifle.
7. Uncocking / Cocking

NOTE: ALWAYS think about safety first. Take your time. If you are uncertain how to proceed, stop and contact Air Venturi for assistance! Air Venturi service line: 216-220-1180

7.1 Uncocking the Airgun
- With the airgun pointed in a SAFE DIRECTION, draw the bolt rearward – slightly past its stopping point so that you feel some resistance.
- Still holding the bolt handle securely, pull the trigger.
  - You will feel the bolt handle pull in the director away from the trigger.
- Gently ease the bolt toward the closed position.
- Pull the trigger to confirm the rifle is NOT in firing mode.

NOTE: The airgun will NOT be harmed if it is dry-fired.

7.2 Cocking the Airgun
- The airgun has two (2) cocking positions
  - Low power
  - High power
- Disengage the safety.
  - The cocking lever (bolt) will NOT pull back the hammer if the safety is on.
- Grab the cocking handle.
- Draw the bolt rearward until you hear it engage at the first click.
  - The bolt should be positioned roughly an inch from being fully engaged. This is for LOW POWER shooting.
- Continue to draw the bolt rearward completely until you hear the second click.
  - The bolt should now be positioned at the end of the slot. This is for HIGH POWER shooting.
- Engage the safety BEFORE loading a projectile.
8. Loading the Airgun

**WARNING:** DO NOT INHALE DUST FROM LEAD PROJECTILES OR PUT THEM IN YOUR MOUTH. WASH HANDS AFTER HANDLING LEAD. LEAD PELLETS CONTAIN LEAD, A CHEMICAL KNOWN TO THE STATE OF CALIFORNIA TO CAUSE CANCER AND BIRTH DEFECTS (OR OTHER REPRODUCTIVE HARM).

**WARNING:** USE THE CORRECT AMMUNITION SIZE FOR YOUR AIR VENTURI WING SHOT AIR RIFLE MODEL. NEVER REUSE AMMUNITION. THE USE OF ANY OTHER KIND OF AMMUNITION MAY CAUSE INJURY TO YOU OR DAMAGE TO YOUR RIFLE.

**NOTE:** ALWAYS think about safety first. Take your time. If you are uncertain how to proceed, stop and contact Air Venturi for assistance! Air Venturi service line: 216-220-1180

**CAUTION:** ALWAYS point the airgun in a SAFE DIRECTION.

8.1 Slide open the breech cover to expose the barrel as in Figure 8.
8.2 Insert the bullet or shell completely into the barrel with the rounded end of the ammunition pointing toward the muzzle end of the gun as in Figures 9 and 10.
8.3 Close the breech cover completely.

**IMPORTANT! WHEN SHOOTING .50 CALIBERS BULLETS OR AIR BOLTS, YOU MUST REMOVE THE CHOKE(S) FROM THE END OF YOUR WING SHOT OR DOUBLE SHOT BARREL.**
9. Operating the Air Distributor System (Double Shot Only)

Find the knurled selector on the side of the breech and note which colored marker is showing. You will either see a red line on the right hand side of the breech next to an “R” (FIG 1), or a green line on the left side next to an “L” (FIG 2). This indicates which barrel will be fired.

To switch from one barrel to the other, simply turn the knurled selector. If the left barrel is selected, rotate the selector back towards you (clockwise) (FIG 3) to switch to the right barrel. If the right barrel is selected, rotate the selector towards the muzzle end of the gun (counter-clockwise) (FIG 4) to switch to the left barrel.

10. Shooting the Double Shot

1. To load the Double Shot, follow the procedure outlined in section 8 of this manual. You will want to load both barrels at the same time, following this procedure.
2. Once loaded and the breech closed, use the Air Distributor system to select the barrel you want to fire first.
3. Cock the bolt as detailed in section 7 of this manual to make the gun ready to fire.
4. Once you have fired your first barrel, turn the knurled selector to switch to the second barrel.
5. Again, cock the bolt to make the gun ready to fire.
6. Once both barrels have been fired, return to step 1 of this section to reload and shoot your Double Shot.

⚠️ CAUTION: The Double Shot is designed to shoot from one barrel at a time. Do not attempt to fire without setting the Air Distributor System on either the right or left barrel. Attempting to make the gun fire both barrels at once can damage the gun and will void the warranty.
11. Cleaning the Barrel

NOTE: If your groups are off, it is likely the barrel requires cleaning. BEFORE proceeding, point the airgun in a SAFE DIRECTION.

11.1 Put the airgun ON “SAFE” and point the airgun in a SAFE DIRECTION.
11.2 DO NOT clean the barrel while the airgun is charged.
   • Completely empty the airgun’s reservoir by dry-firing it in a SAFE DIRECTION.
   • It is best to clean the air rifle when the air pressure is already so low there is not much air discharge.

11.3 With the breech cover opened, insert the tip of the cleaning rod to completely run through the end of the barrel.
   • Do not use a wooden dowel as a cleaning rod.
   • A broken rod in the barrel is extremely difficult to remove.
   • It’s best to use a coated metal rod designed for cleaning airguns.

11.4 Saturate cloth patches with cleaning fluids or lubricants designed for airgun barrels.
   • Push the saturated cloth patch through the muzzle with the cleaning rod until the patch exits at the breech. There’s no need to over-clean the barrel.
   • Swab the bore with cloth patches until the last one comes out clean.
   • Use only cleaning agents suited for airguns. Never use steel brushes. You may use brass or bronze brushes.

12. Clearing a Jammed Bullet / Shell

IMPORTANT: Firing the airgun with too little pressure may cause the ammunition to get stuck in the barrel.

12.1 Put the airgun ON “SAFE” and point the airgun in a SAFE DIRECTION.
12.2 Open the breech cover.
12.3 Use a coated metal rod designed for cleaning rifles to clear the barrel. Push it through from the muzzle to the breech. The jammed projectile should come out.

13. Storage of the Airgun

ALWAYS store the airgun with the ammunition removed and the safety on. Carefully check that there is no ammunition in the barrel. KEEP THE AIRGUN OUT OF THE REACH OF CHILDREN and users not familiar with its use. Store the airgun separately from the ammunition.

It is recommended that you store your Air Venturi PCP airgun with at least 1,000 psi of high-pressure air.
The Air Bolt has the ability to transform your .50 caliber air rifle into an arrow shooting rifle.  

Note: The Air Bolts are 23” in length. Be sure you have at least 1” of clearance between the end of your barrel and the end of the bolt.

**WARNING:** NOT A TOY. ADULT SUPERVISION REQUIRED. ALWAYS KEEP AIRGUNS AND BOLTS FROM REACH OF CHILDREN. MISUSE OR CARELESS USE MAY RESULT IN SERIOUS INJURY OR DEATH.

- ALWAYS know your state and local laws concerning the use of the Air Bolt.
- ALWAYS keep your face and body parts away from the Air Bolt’s broadhead or field tip.
- ALWAYS keep your hands clear of the broadhead or field tip when loading or removing an Air Bolt.
- NEVER attempt to shoot a damaged bolt.

14. Before Shooting the Air Bolt

1. Carefully inspect the bolt before using. Impact with other bolts, hard objects or game can cause damage to the bolts. To properly check for damage to a bolt, flex the bolt while looking for visible cracks or splits in the carbon fiber. To flex the bolt, grip it firmly with both hands. One hand near the point and the other hand near to rear of the shaft. Twist, flex and squeeze the shaft while looking for splits or cracks and listen for any cracking sounds. Do this gently! NEVER attempt to shoot a damaged bolt.

2. Clean your barrel thoroughly! Any lead in the barrel will get picked up by the vanes on the Air Bolt. This can affect accuracy of the Air Bolt and the lifespan of the vanes. Clean with either a brush or patches to remove as much lead build up as possible. We recommend cleaning with a solvent or lube to help break up the lead deposits to ease cleaning. Once clean, be sure to remove any excess lube or solvent in the barrel with dry patches or swabs.

3. Once your barrel is clean and dry, lube the vanes of the Air Bolt and the o-ring on the nock using silicone grease or lube. This will prolong the life of the vanes and the o-ring.

15. Loading the Air Bolt

1. The bolts are loaded from the muzzle. Line up the nock with the muzzle of your rifle.
   - CAUTION: Always keep your face, hands and other body parts clear of the broadhead or field tip when loading a bolt.

2. Once aligned, carefully fold the vanes clockwise as you push the nock into the bore. This will ensure the vanes do not get damaged when loading. (See image 1)

3. Continue pushing the bolt straight down. You will feel it twist with the rifling of the barrel. You will know the bolt is fully inserted when you cannot push any further. The bolt will feel locked in. Only the field tip will protrude from the end of the muzzle (See image 2).

4. You are now ready to shoot the Air Bolt!
   - Should you wish to remove the Air Bolt from the barrel without firing it, decock your rifle (if cocked). The Bolt must be pulled from the barrel. CAUTION: Always keep your face, hands and other body parts clear of the broadhead or field tip when removing a bolt.
16. One-Year Limited Warranty

Sam Yang rifles are manufactured to the highest possible standards, using the finest materials. In the unlikely event of a defect in materials or workmanship in the first twelve (12) months after retail purchase, we’ll repair or replace the rifle under warranty. Warranty is transferable.

What is covered:
Replacement parts and labor. Transportation charges to consumer for repaired product.

What is NOT covered:
• Transportation charges to Air Venturi for defective products.
• Damages caused by abuse, failure to perform normal maintenance or over-pressurization
• Any other expense.
• Parts subject to normal wear and tear.
• Consequential damages, incidental damages or incidental expenses including damage to property.

NOTE: Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you.

Warranty claims:
Warranty claims for U.S. and Canadian customers:
Call Air Venturi at 216-220-1180 before returning any product.

Implied warranties:
Any implied warranties, including the implied warranties of merchantability and fitness for a particular purpose, are limited in duration to one year from date of retail purchase.

NOTE: Some states do not allow limitations on how long an implied warranty lasts, so the above limitation may not apply to you.

To the extent any provision of this warranty is prohibited by federal, state or municipal law which cannot be preempted, it shall not be applicable. This warranty gives you specific legal rights, and you may also have other rights, which vary from state to state and country to country.

Illustrations and photographs are for information purposes only and may not show the exact model you purchased.

The warranty shall be invalid if the rifle:
• Has been disassembled and incorrectly reassembled
• Is found to have lubrication not recommended by Sam Yang
• Has been fitted with non-Sam Yang parts
• Has been misused or abused

The warranty shall NOT cover:
• Any damage or faults caused by owner misuse or action
• Shipment damage of the rifle to or from Air Venturi

This warranty is in addition to your statutory rights. Retain your sales receipt as proof of purchase, as no warranty service will be provided without it.
Implied warranties:
Any implied warranties, including the implied warranties of merchantability and fitness for a particular purpose, are limited in duration to one year from date of retail purchase.

NOTE: Some states do not allow limitations on how long an implied warranty lasts, so the above limitation may not apply to you.

To the extent any provision of this warranty is prohibited by federal, state or municipal law, which cannot be preempted, it shall not be applicable. This warranty gives you specific legal rights, and you may also have other rights, which vary from state to state and country to country. Illustrations and photographs are for information purposes only and may not show the exact model you purchased.

The warranty shall be invalid if the PCP Airgun:
- Has been incorrectly disassembled, reassembled or maintained.
- Has been fitted with non-Air Venturi parts.
- Has been abused, misused or improperly stored.
- Original purchase receipt cannot be presented.

17. Repair Service
In the unlikely event your tank malfunctions, DO NOT ATTEMPT TO FIX THE PROBLEM YOURSELF. Please call Air Venturi so we can address any issues or have you return the tank for repair.

Air Venturi service line: 216-220-1180

18. Company Contact Information

Air Venturi
5135 Naiman Parkway
Solon, OH 44139
216-220-1180

For assistance, technical support or warranty claims, contact the Air Venturi service line: 216-220-1180